Patent claims

1. Data processing method in a scanning microscope with a fast scanner, characterized by the following steps:

- acquisition of data blocks in real-time with a fast scanner;
- transmission of the acquired data blocks to a computer system (23); and
- processing of the data blocks as a function of a frame burst ratio (N).

2. Method according to claim 1, characterized in that the transmission of the acquired data blocks is a function of the frame burst ratio (N), in which case the frame burst ratio (N) is selected such that optimal utilization of the computer system's (23) performance ensues.

3. Method according to claim 2, characterized in that the frame burst ratio (N) is selected by the user as a function of the processing characteristics of the computer system, and in that it remains constant during acquisition of the data blocks.

4. Method according to claim 3, characterized in that all data blocks (35_1, 35_2, ..., 35_n) are stored in the computer system (23), and in that those data blocks that are specified by the constant frame burst ratio (N) are processed.

5. Method according to claim 1, characterized in that adaptive control is envisioned that makes the frame burst ratio (N) variable.

6. Method according to claim 5, characterized in that an initial value is specified for the frame burst ratio (N) at the start of data acquisition.

7. Method according to claim 6, characterized in that the frame burst ratio (N) determines the frequency of the transmitted data blocks and of the on/off ratio, respectively, and is adapted to the current performance of the computer system (23); in that all data blocks (35_1, 35_2, ..., 35_n) are stored in the computer system (23); and in that those data blocks that are specified by the variable frame burst ratio (N) are processed.

8. Method according to claim 1, characterized in that the frame burst ratio (N) is selected by the user as a function of the processing characteristics of the computer system (23) and remains constant during acquisition of the data blocks, and in that at the same time only those data blocks that correspond to the fixed frame burst ratio (N) specified by the user are transmitted to the computer system (23) and are processed by the computer system (23).

9. Method according to claim 8, characterized in that the data blocks that have not yet been transmitted are transmitted to the computer system (23) with a delay and are then processed.

10. Method according to claim 1, characterized in that the frame burst ratio (N) is selected as a function of the processing characteristics of the computer system (23) and are adapted by the computer system during acquisition of the data blocks; and in that at the same time only those data blocks that correspond to the variable frame burst ratio (N) are transmitted to the computer system (23).

11. Method according to claim 10, characterized in that the data blocks that do not correspond to the variable frame burst ratio (N) are transmitted and/or processed to the computer system (23) with a delay.

12. Scanning microscope with a fast scanner, consisting of a scanning module (7), a position sensor (11), and at least one detector (19), with a computer system (23) with at least one peripheral device (27) allocated to the computer system (23), and with one input device (25), characterized in that a local storage unit (16) is allocated to the fast scanner; in that data blocks are transmissible from the local storage units (16) of the fast scanner to the computer system (23), in which case a frame burst ratio (N) is selected such that optimal utilization of the computer system's (23) performance is achieved, and in that the transmitted data blocks that are a function of the frame burst ratio (N) can be processed in a peripheral device (27).

13. Scanning microscope according to claim 12, characterized in that data blocks are transmissible to the computer system (23) as a function of the frame burst ratio (N).

14. Scanning microscope according to claim 12, characterized in that the frame burst ratio (N) is constant during a data acquisition cycle and reflects the processing characteristics of the computer system (23).

15. Scanning microscope according to claim 12, characterized in that adaptive control of the computer system (23) is envisioned that adapts the frame burst ratio (N) during the data acquisition cycle.

16. Scanning microscope according to claim 12, characterized in that the frame burst ratio (N) is constant during a data acquisition cycle and reflects the processing characteristics of the computer system (23), and in that the computer system (23) receives first the data blocks that correspond to a fixed frame burst ratio (N).

17. Scanning microscope according to claim 12, characterized in that adaptive control is envisioned that adapts the frame burst ratio (N) during a data acquisition cycle, and in that the computer system (23) receives first the data blocks that correspond to the variable frame burst ratio (N).